

ASX RELEASE | OSTEOPORE LIMITED

Osteopore secures lead role in Clinical-industrial Partnership with National Dental Centre Singapore and A*STAR research institutes through A\$19m project, develops next generation jaw implant to access the A\$1.26b dental bone graft and membrane market

Highlights:

- The project encompasses the development of a combination product with patented biological additives and polymer compound to enhance the bone regeneration capability and clinical outcomes. Expected outcomes include shorter surgical procedures and faster recovery time for patients.
- Findings from the project will be used to form the basis of Osteopore's next generation products. The dental bone graft and membrane market has an estimated value of A\$1.26b according to Verified Market Research, with 10% of the global dental jaw surgeries conducted in APAC.
- The total contribution by all parties including Singapore's Foundation centre is A\$18.7m, with Osteopore contributing A\$1.8m in cash over three years. Osteopore is the industry lead in this project, bringing together three major Singaporean national research institutions, each with the expertise crucial to the execution.
- The translational study builds on intellectual property approvals for Osteopore's magnesium-composite materials, previously obtained by the Osteopore team in several regions, including Singapore, Europe, and China.

13 December 2021: Osteopore Limited (ASX: OSX) ("Osteopore" or the "Company"), an Australian and Singapore based global leader in the manufacture of innovative regenerative implants at commercial scale empowering natural tissue regeneration, is pleased to announce it has signed an agreement to launch a A\$18.7m project with the National Dental Centre Singapore and A*STAR's research institutes as the industry leader to develop dental implants to support its entry into a global market estimated at A\$1.26b.

Functional, regenerated bone in the jaw region is important as it has a significant impact on critical oral functions and quality-of-life. As the leading company in the application of *in-situ* Tissue Engineering concepts, Osteopore aims to extend the advantages of *in-situ* Tissue Engineering by leading a multidisciplinary initiative to develop their next generation bone regeneration technology.

The A\$18.7m study, mostly funded by the Singapore foundation, includes milestones including in-vivo implantations with Osteopore patented Magnesium composite material. Patented biological additives and polymer compounds will be combined and tested for any



adverse reactions, any osteogenic differentiation (indicating bone growth), and higher osteogenic differentiation (which indicates faster bone growth). These studies are designed to demonstrate the safety and efficacy of the novel material combination.

The results of this research will be expected to make a significant contribution to the development of the next-generation Osteopore jaw implants which is expected to promote faster bone growth, reduce the need for complex bone harvesting processes, thereby simplifying future dental procedures and applications.

Osteopore is the industry lead on this project that brings various expertise from the following government institutions together:

- Institute of Molecular and Cell Biology (IMCB), a research institute under the Agency for Science, Technology and Research (A*STAR), will be working on the biological stimulants that hasten bone healing.
- Singapore Institute of Manufacturing Technology (SIMTech), an A*STAR research institute that develops high-value manufacturing technology, will be developing bespoke manufacturing technology for the production of the regenerative scaffolds.
- National Dental Centre Singapore (NDCS), Singapore's flagship multidisciplinary specialist centre for oral healthcare with strong expertise in complex dental conditions and the leading institution for oral health research, will be supporting the clinical application of this innovative regenerative technology.

Osteopore's CEO, Goh Khoon Seng said, "We are very thankful to participate and lead this grant and for the support of all the institutions involved in this research. We strongly believe in developing and commercialising regenerative technologies for the well-being of patients. With this multidisciplinary collaboration, we can tap into a wide range of skillsets to make medical research and development, which would otherwise be a long and onerous process, more efficient and effective."

Osteopore's Chairman, Mark Leong added, "This partnership with three renowned national institutions in Singapore is tangible testament of the regard in which Osteopore's technology and bring to market abilities are held. We are constantly developing new and better applications for our technology as well as growing addressable markets. This partnership project is a significant step for Osteopore."

"We are pleased to be a key part of this meaningful project in developing regenerative technologies for dental use. This collaboration demonstrates the value of public-private partnerships in leveraging on each other's expertise to translate scientific discoveries into commercialisable products," said Professor Hong Wanjin, Executive Director of IMCB.

Dr Simon Cool, Research Director, Institute of Molecular and Cell Biology, A*STAR, said, "We are excited to be partnering with Osteopore on the use our bioadditives for dental



applications. This collaboration will help drive translation of our technology from the bench to the bedside."

Dr David Low, Executive Director of A*STAR's SIMTech, said, "We are pleased to collaborate with Osteopore and public institutions to jointly develop next generation 3D-printed bioresorbable implants. Such deep public-private partnerships play an important role in boosting the competitiveness of local SMEs such as Osteopore through co-innovation, enabling them to expand R&D capabilities and develop unique products that meet local demands and expand to overseas markets."

"We are excited to be part of this industry-level research collaboration that looks to shape the next generation of jaw implant. The research will yield improvements to bone regenerative capabilities that would translate into better surgical outcomes and faster recovery for our patients. We believe this novel and less invasive technique will also gain quick adoption by dental practitioners and patients", said Clinical Associate Professor Goh Bee Tin, Deputy Director, Research and Education, NDCS.

In addition to expansion of its product lines, further applications of the new-generation dental implant could involve the development of complementary technologies, which could potentially open up more collaborative opportunities for the company.

This announcement has been approved for release by Osteopore's Board of Directors.

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About Osteopore Limited

Osteopore Ltd is an Australian and Singapore based medical technology company empowering natural tissue regeneration by commercialising a range of bespoke products specifically engineered to facilitate natural bone healing across multiple therapeutic areas. Osteopore's patented technology fabricates specific micro-structured scaffolds for bone regeneration through 3D printing and bioresorbable material.

Osteopore's patent-protected scaffolds are manufactured using a proprietary manufacturing technique with a polymer that naturally dissolve over time to leave only natural, healthy bone tissue, significantly reducing post-surgery complications commonly associated with permanent bone implants. For more information, visit us at <u>www.osteopore.com</u>

About the Agency for Science, Technology and Research (A*STAR)

The Agency for Science, Technology and Research (A*STAR) is Singapore's lead public sector R&D agency. Through open innovation, we collaborate with our partners in both the public and private sectors to benefit the economy and society. As a Science and Technology Organisation, A*STAR bridges the gap between academia and industry. Our research creates economic growth and jobs for Singapore, and enhances lives by improving societal outcomes in healthcare, urban living, and sustainability. A*STAR plays a key role in nurturing scientific talent and leaders for the wider research



community and industry. A*STAR's R&D activities span biomedical sciences to physical sciences and engineering, with research entities primarily located in Biopolis and Fusionopolis. For ongoing news, visit www.a-star.edu.sg.

About National Dental Research Institute Singapore (NDRIS)

National Dental Research Institute Singapore or NDRIS is the research arm of the National Dental Centre Singapore (NDCS). It is established to develop novel effective oral therapies for common chronic diseases and to translate research into practice to improve oral and general health.

National Dental Centre Singapore (NDCS) is a specialty centre for oral health, providing multidisciplinary and integrated care for patients. Part of the SingHealth Duke-NUS Academic Medical Centre, NDCS trains dental professionals and conducts research in collaboration with local and international academic institutions.

NDCS is a member of SingHealth public healthcare cluster with four hospitals, five national specialty centres, three community hospitals and nine polyclinics.

For more information, visit www.ndcs.com.sg.

Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices or potential growth of Osteopore Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.